

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the instant application:

1-40. (Canceled)

41. (Currently amended) A biometric key in the form of a mechanical key having:
a key body incorporating a biometric sensor for transmission of a signal represented by a biocode of data generated by the biometric sensor,

said key body engageable with a mechanical lock body and having one or more electrical contacts for engaging mating electrical contact(s) of the mechanical lock body, whereby

wherein in use said signal is forwarded to processing means interfaced with or electrically connected to the mechanical lock body for granting access to an authorized user to a facility accessible by the biometric key upon engagement of the key body with the mechanical lock body.

characterized in that wherein the sensor is surrounded by an insulator in the key body and is accommodated within a mating recess of the insulator,

wherein and the sensor is electrically connected to a circuit board associated with the insulator, which the circuit board is being electrically connected to said one or more contacts, and wherein the insulator is insertable into a slot of the key body and attached thereto.

42. (Currently amended) A biometric key as claimed in claim 41, in the form of a mechanical key having a key body incorporating a biometric sensor for transmission of a signal represented by a biocode of data generated by the biometric sensor, said key body engageable with a mechanical lock body and having one or more electrical contacts for engaging mating electrical contact(s) of the mechanical lock body whereby in use said signal is forwarded to processing means interfaced with or electrically connected to the mechanical lock body for granting access to an authorized user to a facility accessible by the biometric key upon engagement of the key body

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~~with the mechanical lock body characterized in that the sensor is surrounded by an insulator in the key body and the sensor is electrically connected to a circuit board associated with the insulator which circuit board is electrically connected to said one or more contacts, wherein the insulator is slidably attached to the key body and bonded thereto.~~

43. (Cancelled)

44. (Previously Presented) A biometric key as claimed in claim 41, wherein the circuit board is accommodated within a cavity of the insulator.

45. (Previously Presented) A biometric key as claimed in claim 41, wherein the circuit board at one end has contact traces or wire leads which engage with corresponding contact traces of an adjacent end of the biometric sensor.

46. (Previously Presented) A biometric key in the form of a mechanical key having a key body incorporating a biometric sensor for transmission of a signal represented by a biocode of data generated by the biometric sensor, said key body engageable with a mechanical lock body and having one or more electrical contacts for engaging mating electrical contact(s) of the mechanical lock body whereby in use said signal is forwarded to processing means interfaced with or electrically connected to the mechanical lock body for granting access to an authorized user to a facility accessible by the biometric key upon engagement of the key body with the mechanical lock body characterized in that the sensor is surrounded by an insulator in the key body and the sensor is electrically connected to a circuit board associated with the insulator which circuit board is electrically connected to said one or more contacts, wherein the insulator incorporates a plurality of contact portals in contact with corresponding contacts or wire leads of the circuit board.

47. (Previously Presented) A biometric key as claimed in claim 41, wherein each

contact is at least partly surrounded by an insulator sleeve.

48. (Previously Presented) A biometric key as claimed in claim 47, wherein the insulator sleeve is aligned normally to a longitudinal axis of the key body.

49. (Previously Presented) A biometric key as claimed in claim 41, wherein the key body has a handle or gripping part incorporating the biometric sensor and a blade portion.

50. (Previously Presented) A biometric key as claimed in claim 49, wherein the blade portion has a plurality of wards.

51. (Previously Presented) A biometric key as claimed in claim 49, wherein the blade portion has a shape of a plate and does not incorporate wards.

52. (Previously Presented) A biometric key as claimed in claim 41, wherein each contact comprises a pair of contact pins located in accommodating insulator sleeves.

53. (Previously Presented) A biometric key as claimed in claim 41, wherein the key body incorporates a smart chip.

54. (Currently amended) A mechanical lock body engageable with a biometric key which incorporates a biometric sensor for transmission of a signal representing a biocode of data generated by the biometric sensor, said mechanical lock body having:

(i) a movable component or cylinder having one or more contact portals for engagement with corresponding contact(s) of the biometric key when said key is engaged with the movable component or cylinder; and

(ii) a barrel for retention of said movable component having contact(s) for engagement

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with the contact portal(s) of the movable component or cylinder whereby in use the signal is forwarded to processing means interfaced or electrically connected with the barrel upon engagement of the biometric key with said movable component for automatic generation of the signal for granting access to an authorized user of a facility accessible by the biometric key,

wherein after analysis of the signal by the processing means, access to the facility is provided by activation of a linear motor or solenoid located within the lock body which is in electrical connection with the processing means wherein said linear motor or solenoid is actuated to facilitate rotation of the moveable component or cylinder relative to the barrel to cause unlocking of the lock body, said rotation of the movable component or cylinder being caused by corresponding rotation of a locking pin within in the lock body which is due to actuation of the linear motor or solenoid..

55. (Previously Presented) A mechanical lock body as claimed in claim 54, wherein the barrel has a plurality of tumblers for engagement with a plurality of wards of said biometric key.

56. (Previously Presented) A mechanical lock body as claimed in claim 54, which incorporates an internal processing unit in said barrel, which corresponds to said processing means.

57. (Previously Presented) A mechanical lock body as claimed in claim 56, wherein the internal processing unit has an interface with an external processor or computer for enrolment of biometric data.

58-59. (Cancelled)

60. (Previously Presented) A mechanical lock body as claimed in claim 54, wherein

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each of the contacts contained in the movable component or cylinder are spring biased to a position in abutment with a corresponding contact of the biometric key.

61. (Previously Presented) A mechanical lock body as claimed in claim 60, wherein each of the contacts are normal to a longitudinal axis of the biometric key in use.

62. (Cancelled)

63. (Currently amended) A mechanical lock body as claimed in claim 60, engageable with a biometric key which incorporates a biometric sensor for transmission of a signal representing a biocode of data generated by the biometric sensor, said mechanical lock body having:

(i) a movable component or cylinder having one or more contact portals for engagement with corresponding contact(s) of the biometric key when said key is engaged with the movable component or cylinder; and

(ii) a barrel for retention of said movable component having contact(s) for engagement with the contact portal(s) of the movable component or cylinder whereby in use the signal is forwarded to processing means interfaced or electrically connected with the barrel upon engagement of the biometric key with said movable component for automatic generation of the signal for granting access to an authorized user of a facility accessible by the biometric key wherein each of the contacts are accommodated within an insulator,

wherein within each insulator there is provided an inner contact for touching corresponding contacts of the biometric key in use and an outer contact separated from an adjacent inner contact by a spring.

64. (Previously Presented) A mechanical lock body as claimed in claim 54, wherein there is incorporated in said body an indicator means indicating validation or rejection of biometric

data generated by the sensor.

65. (Previously Presented) A mechanical lock body as claimed in claim 64, wherein the indicator means is a light emitting diode.

66-76. (Cancelled)

77. (Previously Presented) A process for providing access to a facility which incorporates a movable part which includes the steps of:

(i) engaging a biometric key having a biometric sensor for transmission of a signal represented by a biocode of data generated by the biometric sensor, said key having one or more contacts with a receptor body operatively associated with or attached to said movable part whereby said contact(s) of the biometric key engage corresponding contacts of the receptor body whereby electrical power is provided to processing means interfaced with or electrically connected to the receptor body whereby the signal is generated by engagement of the biometric key with the receptor body and forwarded to the processing means which includes a processing unit having a database and said processing unit is interfaced with a host computer having a database;

(ii) matching the biocode with the database of the processing unit to permit validation of the biocode; and

(iii) providing access to the facility of an authorized user by causing movement of said movable part to an unlocked position,

wherein enrolment of an authorized biometric signature takes place by initial engagement of said biometric key with said receptor body and actuation of the biometric sensor for automatic generation of a signal representing said biocode of data which represents said authorized biometric signature which is then captured into said database of the processing unit and wherein the host computer requests personal and/or demographic information relative to the authorized biometric signature before said capture of the authorized biometric signature.

78. (Cancelled)

79. (Previously Presented) A process as claimed in claim 77, wherein the personal and/or demographic information is stored with biometric signature(s) in the database of the host computer and a search is made of this database for previous enrolments before the authorized biometric signature is enrolled in the host computer database as a new enrolment and subsequently the database of the processing unit and the host computer database is updated to reflect the new enrolment.

80-88. (Cancelled)

89. (Currently amended) A mechanical lock body as claimed in claim [[59]] 54, wherein said locking pin fits within a bore of the movable component or lock cylinder.

90. (Currently amended) A mechanical lock body as claimed in claim [[59]] 54, wherein said linear motor or solenoid has a spring loaded piston which fits within an aperture of the locking pin and also fits within a mating socket of the barrel.

91. (Currently amended) A mechanical lock body as claimed in claim [[59]] 54 wherein the locking pin has a projection which engages with a slot of the movable component or lock cylinder.

92. (Previously presented) A mechanical lock body as claimed in claim 90 wherein the barrel has a trigger latch located on a rotatable gear whereby when unlocking of the mechanical lock body is initiated the spring loaded piston retracts within the electric motor or solenoid to allow the locking pin to rotate.

93. (Previously presented) A mechanical lock body as claimed in claim 92 wherein the trigger latch engages with a slot in the barrel.

94. (Previously presented) A mechanical lock body as claimed in claim 92 wherein there is provided a small pin which interconnects the locking pin and the rotatable gear wherein the small pin engages in a hole of the locking pin and also engages in a recess of the rotatable gear.

95. (Cancelled)